

CLAIM AMENDMENTS

1. (original) A method for universal packaging in a back-end IC manufacturing process comprising:

traversing a die-strip through a front-of-line portion of said back-end manufacturing process and a part of an end-of line portion of said back-end manufacturing process, wherein said front-of-line portion and said part of said end-of-line portion function independently of the die size of said die-strip;

accessing an electronic die-strip database stored in a computer system to determine said die size of said die-strip; and

based on said die size, cutting said die-strip into individual devices.

2. (original) A method as described in Claim 1 further comprising sorting said individual devices, wherein said sorting is dependent on said die size.

3. (original) A method as described in Claim 1 comprising controlling said front-of-line portion, said part of said end-of line portion, said cutting and said sorting using said computer system.

4. (original) A method as described in Claim 1 wherein said part of said end-of-line portion comprises an automated in-line molding process and wherein said traversing comprises processing said die-strip through said automated in-line molding process that functions independently of said die size.

5. (original) A method as described in Claim 4 wherein said part of said end-of-line portion further comprises an automated in-line ball attachment process and wherein said traversing further comprises processing

said die-strip through said automated in-line ball attachment process that functions independently of said die size.

6. (original) A method as described in Claim 5 wherein said in-line ball attachment process is utilized on both plastic and copper.

7. (original) A method as described in Claim 1 wherein said cutting is performed using an integrated in-line sawing process of said end-of-line portion.

8. (original) A method as described in Claim 1 wherein said front-of-line portion comprises an in-line die-attachment process; an in-line cure process; a first in-line plasma process; an in-line bond process; and a second in-line plasma process and wherein said traversing comprises:

processing said die-strip through said in-line die-attachment process that functions independently of said die size;

processing said die-strip through said in-line cure process that functions independently of said die size;

processing said die-strip through said first in-line plasma process that functions independently of said die size;

processing said die-strip through said in-line bond process that functions independently of said die size; and

processing said die-strip through said second in-line plasma process that functions independently of said die size.

9. (original) A method as described in Claim 1 further comprising traversing said individual devices through a test process and a finish assembly processes which produce taped and reeled products.

10. (original) A method for universal packaging in a back-end IC manufacturing process comprising:

traversing a die-strip through a front-of-line portion of said back-end manufacturing process, a mold process and a ball attachment process, wherein said front-of-line portion, said mold process and said ball attachment process all function independently of the die size of said die-strip;

receiving data identifying said die size of said die-strip and storing said die size into a database.

using a computer control system to access said database to obtain said die-size; and

based on said die size, cutting said die-strip into individual devices.

11. (original) A method as described in Claim 10 further comprising sorting said individual devices, wherein said sorting is dependent on said die size.

12. (original) A method as described in Claim 10 wherein said processes of said front-of-line portion, said mold process and said ball attachment process are integrated in-line processes of said back-end manufacturing process.

13. (original) A method as described in Claim 12 wherein said ball attachment process is utilized on both plastic and copper.

14. (original) A method as described in Claim 10 wherein said cutting is performed using an integrated in-line sawing process of said end-of-line portion.

15. (original) A method as described in Claim 10 wherein said front-of-line portion comprises an in-line die-attachment process; an in-line cure

process; a first in-line plasma process; an in-line bond process; and a second in-line plasma process and wherein said traversing comprises:

processing said die-strip through said in-line die-attachment process that functions independently of said die size;

processing said die-strip through said in-line cure process that functions independently of said die size;

processing said die-strip through said first in-line plasma process that functions independently of said die size;

processing said die-strip through said in-line bond process that functions independently of said die size; and

processing said die-strip through said second in-line plasma process that functions independently of said die size.

16. (original) A method as described in Claim 10 further comprising traversing said individual devices through a test process and finish assembly processes which produce taped and reeled products.

17-27 (cancelled)

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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